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ABSTRACT

This document consists of supplemental information designed to accompany a presentation on the application of projection technology, including video projectors and liquid crystal display (LCD) devices, in the online catalog library instruction program at the Indiana State University libraries. Following an introductory letter, the packet includes: (1) general considerations in selecting computer projection equipment; (2) pluses and minuses of the SONY Video Projection System and Kodak DataShow System; (3) a listing of six other institutions that use computer projection technology; (4) simplified schematics illustrating the SONY Video Projection System and the Kodak DataShow System; (5) a questionnaire designed to elicit information about student's reactions to video projection; (6) the results of the video projection evaluation by students; (7) nine selected sources for further reading; and (8) selected materials used in Indiana State University's library instruction program, i.e., a brief guide to LUIS (Library User Information Service) and a Cunningham Memorial Library Instruction and Orientation LUIS exercise. (KM)

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ADVANCES IN PROJECTION TECHNOLOGY FOR ON-LINE INSTRUCTION

developed by

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for presentation at the

15th National LOEX
Library Instruction Conference
Ohio State University

May 1987

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"Advances in Projection Technology

for On-line Instruction"

PROPOSED DOCUMENT RESUME

This document was distributed as a packet of supplemental information at a presentation given at the 15th National LOEX Library Instruction Conference (Ohio State University, May 1987). The presentation dealt with uses of new projection equipment (video projectors and liquid crystal display projection devices) as applied to on-line catalog instruction, and represented an expanded treatment of a presentation made earlier at a NOTIS User's Group Meeting at Northwestern University in July 1986. The document contains information useful to libraries considering the purchase of the newer projection equipment, including: general considerations in selecting computer projection equipment; positive and negative characteristics of video projection systems and liquid crystal display (LCD) devices; a simplified schematic of two such systems; a list of institutions identified as currently using computer projection for on-line instruction; a video projection evaluation form and results of such an evaluation conducted at Indiana State University; and selected sources for further reading. The document also includes selected general materials used in Indiana State University's library instruction program.

Advances in Projection Technology for On-line Instruction

15TH NATIONAL LOEX
LIBRARY INSTRUCTION CONFERENCE
OHIO STATE UNIVERSITY
MAY 6-8, 1987

PRESENTORS:

SCOTT DAVIS, ASSOCIATE LIBRARIAN
MARSHA MILLER, SENIOR ASSISTANT LIBRARIAN
INDIANA STATE UNIVERSITY
TERRE HAUTE, IN

INDIANA STATE UNIVERSITY LIBRARIES
DEPARTMENT OF LIBRARY INSTRUCTION AND ORIENTATION

Thursday, May 7, 1987

Dear Library Instruction Colleague:

The purpose of this presentation is to share with you the application of projection technology in the on-line catalog library instruction program at Indiana State University Libraries. Even though specific projection equipment will be demonstrated, our purpose is not to promote or malign any particular projection system or brand. There are numerous systems available on the market, ranging widely in cost, portability, and instructional potential.

Integration of projection technology into the library instruction program at ISU began in Spring, 1985, using a SONY video projection system interfaced with an IBM-pc. Such a system was considered state-of-the-art at that time. Our SONY system has worked well for us during the past two years and has been received favorably by the students and faculty who have attended our instructional sessions. However, recent advances in liquid crystal display systems (LCDs) could have a major impact on what constitutes today's state-of-the-art instructional projection system. ISU's Department of Library Instruction and Orientation is in the process of upgrading their current projection hardware to incorporate these recent LCD advances into their instructional program. Full implementation of a new LCD system is planned for Fall, 1987.

A table of contents has been provided on the following page for quick access to specific materials in this packet. The materials summarize much of the information presented in our demonstration. We have also included a couple of miscellaneous handouts used in our on-line instructional efforts which may be of interest to you.

The technology which surrounds us is changing so rapidly that it is little wonder that many of us often feel a bit frustrated and intimidated by the prospect of staying abreast of the advances. In implementing the hardware demonstrated here today, one need not become a "technical wizard." Instead, should you choose to acquire a video or LCD projection system, you should work very closely with your vendor and with your institution's systems department, computer center, and media services unit to ensure a system that is versatile, durable, and effective in terms of your instructional program needs.

Sincerely,

H. Scott Davis
Department Head

Marsha A. Miller
Instruction Librarian

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ADVANCES IN PROJECTION TECHNOLOGY FOR ON-LINE INSTRUCTION

ABSTRACT

Most would agree that the "best" type of library instruction involves an interactive component, i.e., hands-on. On-line catalogs in academic libraries present new, yet not insurmountable, instructional problems for BI librarians. There seems to be something very two-dimensional about using the traditional transparency/lecture/handouts approach for instructing library users on how to use an on-line catalog. Video projection and recent advances in liquid crystal display technology (LCDs) provide an exciting instructional alternative to more traditional BI methods. This presentation's purpose is to introduce participants to one of the latest advances in projection technology--specifically, the Kodak DataShow Projection Pad. DataShow is an LCD device which interfaces with an IBM-pc and standard overhead projector, allowing for projection of terminal screen images as the instruction librarian goes through an actual search. In addition to a demonstration of DataShow, other LCD systems and the SONY Video Projection will be discussed. Positive and negative characteristics of the various systems discussed will be presented.

GENERAL CONSIDERATIONS IN SELECTING COMPUTER PROJECTION EQUIPMENT

-cost of equipment and any needed peripherals

-portability/storage requirements

-download/simulation capabilities

-durability/warranty

-versatility of applications

-comparative on-site demonstrations of different systems

-satisfaction of other users (request addresses from vendor)

-specifications of room where equipment will be used most, i.e., light control, dimensions, power supply, security, etc.

* *

PLUSES AND MINUSES OF THE SONY VIDEO PROJECTION SYSTEM AND KODAK DATASHOW SYSTEM

The following positive and negative characteristics of the SONY Video Projection System and the Kodak DataShow System have been identified in terms of their utilization and anticipated implementation in the library instruction program at Indiana State University. The extent to which you agree that these characteristics are positive or negative will be determined by the specifics of your library instruction program, and by your intended application(s) of computer projection technology in the program. Given that the utilization of computer projection equipment is relatively new to academic library instruction, this list should not be considered complete.

SONY Video Projection System (Model VPH-722Q1):

+ Capability for projecting "live action" videotapes
+ Well-received by students and faculty; preferred over more traditional teaching methods (transparencies/lecture)
+ Relative portability
+ Maintenance record at ISU is very good
- Cost is relatively high
- Fixed projected image size (7' diagonal max.)
- Sensitive to ambient light; considerable parallax with wide viewing angle
- Magnifies "noise" in live action video images
- Audio quality is only "fair" in live action video
- Diminished image clarity with increased viewing distance

PLUSES AND MINUSES... (continued)

Kodak DataShow:

+ Cost is relatively low
+ Very portable
+ IBM compatible
+ Download/simulation software
+ Unlimited projected image size
+ Less sensitive to ambient light than SONY system
+ Remote control capability
- Fragile
- Image fades when overhead lamp wattage exceeds 360 watts (650 watts is the prevalent overhead lamp wattage)
- Software is complicated for persons with limited computer knowledge
- Cannot project "live action" video
- Relatively untested in terms of long-range durability/maintenance requirement
- Miscellaneous design "negatives": cabling too short, no "off/on" switch on unit, power cord is on the overhead's neck corner.

* * * *

SOME INSTITUTIONS USING COMPUTER PROJECTION FOR ON-LINE INSTRUCTION

The institutions listed below have been indentified as users of video and/or computer projection technology in on-line instruction. The contact persons listed below all indicated that they would be willing to answer your questions or discuss with you their use of the "new" projection technology.

Houston Academy of Medicine.....Contact Person:
Texas Medical Center Library — Dr. Abigail Hubbard
1133 M. D. Anderson Blvd. — Director of Education
Houston, TX 77030 — System in use:
(713) 797-1230 — Limelighter
Kodak Datashow (in use 1 month)

Health Sciences Library.....Contact Person:
Univ. of North Carolina — Ms. Fran Allegri
Pittsboro Road — System in use:
Chapel Hill, NC 27514 — SONY (ceiling mounted)
(919) 962-0700 — [is considering Kodak Datashow]

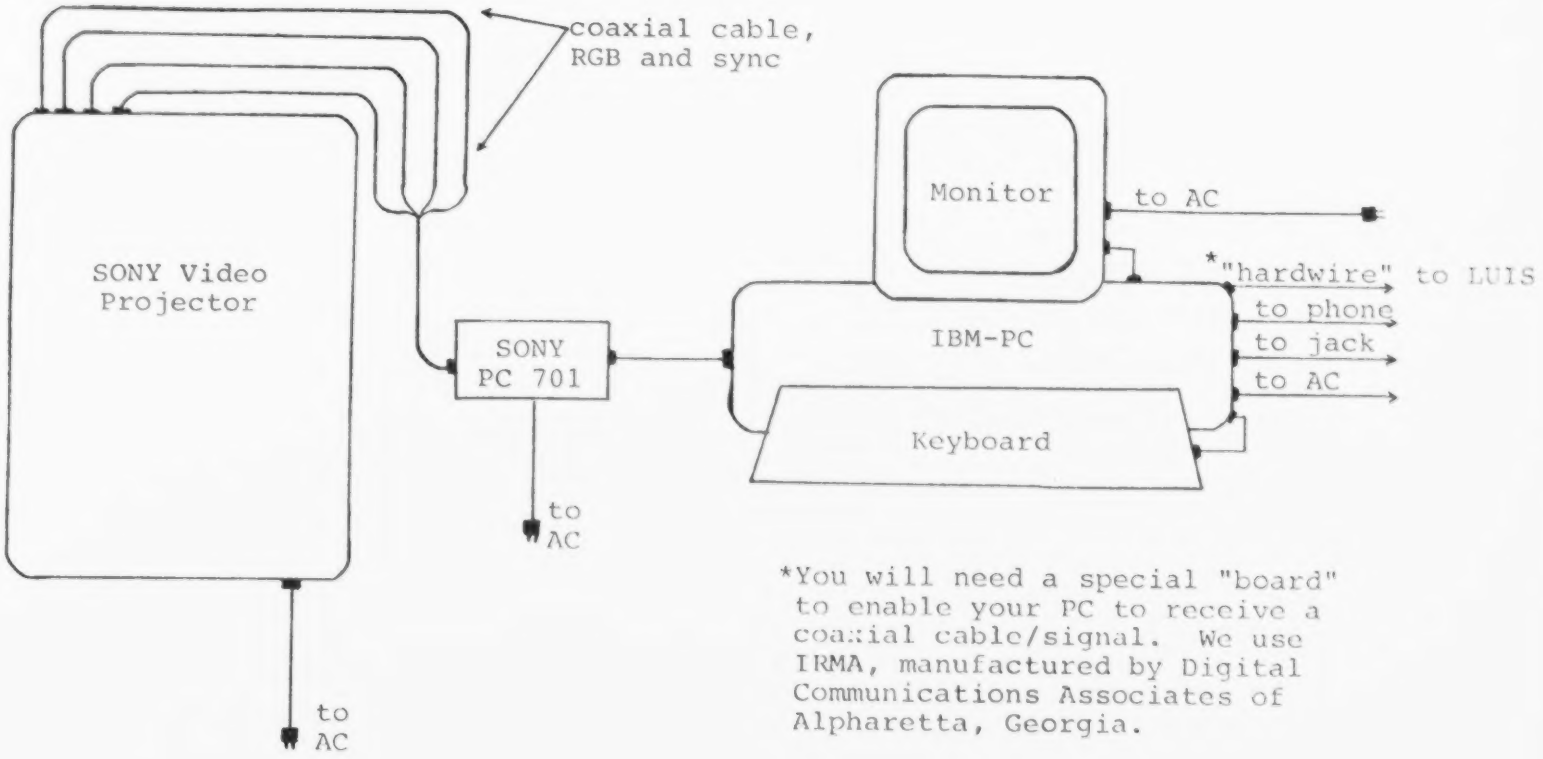
University of North Carolina.....Contact Person:
Chapel Hill, NC 27514-6080 — Carson Holloway
(919) 962-1151 — System in use:
Kodak Datashow

Duke University.....Contact Person:
William R. Perkins Library — Elizabeth Dunn
Durham, NC 27706 — System in use:
(919) 684-2373 — Kodak Datashow [not yet in use; awaiting Toshiba PC]

University of Georgia Libraries.....Contact Person:
Athens, GA 30602 — Ms. Deborah Condrey
(404) 542-8460 — Bibliographic Instruction Coordinator
System in use:
SONY

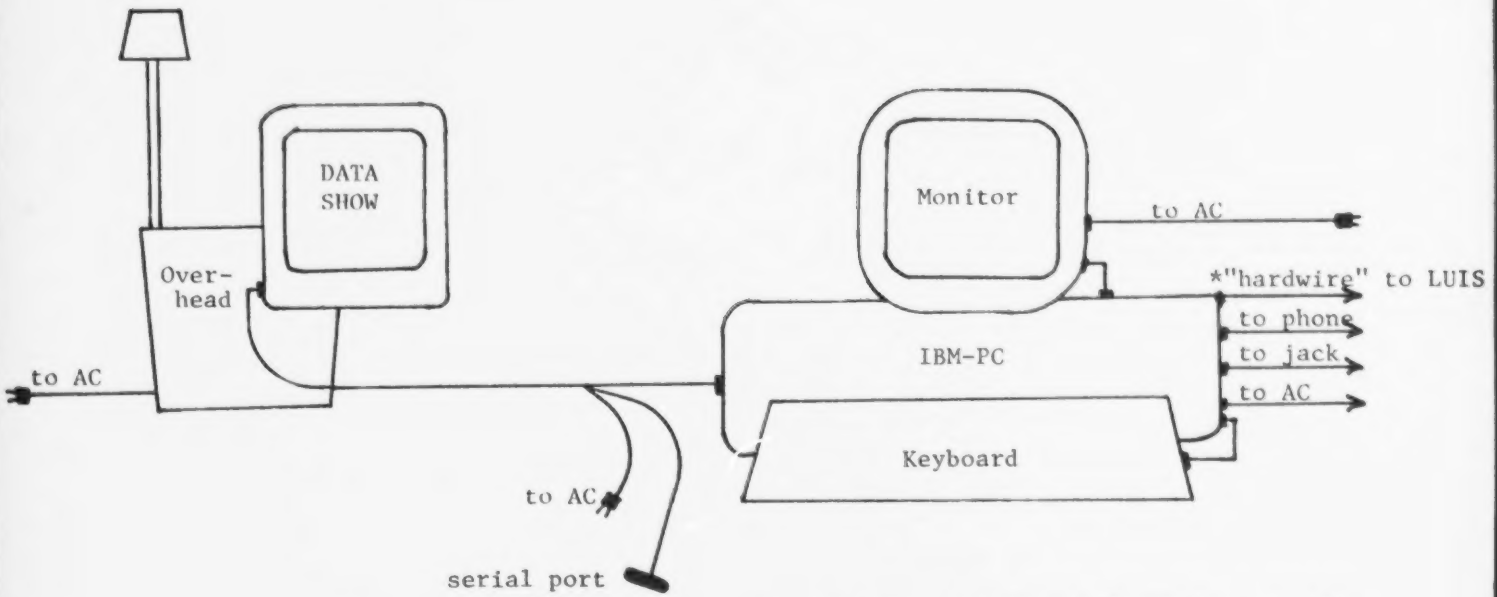
Indiana State University.....Contact Person:
Cunningham Memorial Library — Scott Davis
Terre Haute, IN 47809 — System in use:
(812) 237-2604, 2605 — SONY (in use 2 years)
LCD to be purchased FY 87/88

SIMPLIFIED SCHEMATIC OF SONY VIDEO PROJECTION SYSTEM
Cunningham Memorial Library - Department of Library Instruction
INDIANA STATE UNIVERSITY
Terre Haute, Indiana
May, 1987



*You will need a special "board" to enable your PC to receive a coaxial cable/signal. We use IRMA, manufactured by Digital Communications Associates of Alpharetta, Georgia.

SIMPLIFIED SCHEMATIC OF DATASHOW PROJECTION SYSTEM
Scheduled for Fall, 1987 Implementation
Cunningham Memorial Library - Department of Library Instruction
INDIANA STATE UNIVERSITY
Terre Haute, Indiana
May, 1987



*You will need a special "board" to enable your PC to receive a coaxial cable signal. We use IRMA, manufactured by Digital Communications Associates of Alpharetta, GA.

*VIDEO PROJECTION EVALUATION

This is an anonymous evaluation which seeks student input and reaction to the various teaching methods used in instruction. Please respond to each of the following items. DO NOT SIGN YOUR NAME TO THIS EVALUATION. THANKS FOR YOUR INPUT!

1. The use of video projection for teaching students how to use LUIS is effective. (Circle your response)

Strongly Agree (SA)	Agree (A)	Disagree (D)	Strongly Disagree (SD)

2. I prefer the video projection method of teaching LUIS over more conventional teaching methods, such as transparencies, handouts, lecture only, etc.

SA A D SD

3. I would have preferred a more conventional teaching method for learning LUIS, i.e., transparencies, lecture only, handouts, self-paced exercise, etc.

SA A D SD

4. Please comment briefly on your overall reaction to the use of video projection in the classroom. Note any specific advantages (things you particularly like about it) and/or disadvantages (things you did not like about it):

_____

_____

_____

_____

_____

_____

_____

_____

THANK YOU FOR THIS IMPORTANT INPUT!!

*[EXPLANATORY NOTE: This evaluation instrument was administered to students and faculty in June, 1986, in an effort to determine their reaction to the SONY video projector. A similar evaluation will be administered upon implementation of DataShow in Fall, 1987].

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RESULTS OF SONY VIDEO PROJECTION EVALUATION
JUNE, 1986

N=85

SA=Strongly Agree A=Agree D=Disagree SD=Strongly Disagree

---

n=84 1. The use of video projection for teaching students how to use LUIS is effective.

SA	A	D	SD
77%	23%	0%	0%
(65)	(19)	(0)	(0)

n=85 2. I prefer the video projection method of teaching LUIS over more conventional teaching methods.

SA	A	D	SD
72%	26%	2%	0%
(61)	(22)	(2)	(0)

n=85 3. I would have preferred a more conventional teaching method for learning LUIS.

SA	A	D	SD
9%	14%	37%	40%
(8)	(12)	(31)	(34)

4. Representative student/faculty comments on the use of video projection as a teaching method:

"Too dim for my eyes; the screen is not clear enough."

"It leaves no room for misinterpretation. It shows you what you do and what happens after. Very clear cut. I like having the handouts with it. It gives you something in writing to refer to later."

"This is great--continue to use it please!"

"I did not know this was available. I cannot wait to tell our corporation's computer person--this streamlines computer instruction!"

"The projection system was more interesting than the normal teaching method. It let me see first-hand how LUIS works."

"It eliminates the problem of accent mostly for foreign students."

"It put you in the driver's seat. Very good presentation!"

"By my vision being impaired (I wear glasses) this was a very good device because I did not have to strain to see what the instructor was covering."

SELECTED SOURCES FOR FURTHER READING

NOTE: While little has been published about video projection as an instructional delivery system, even less is currently available on LCDs.

Anonymous. "Large Screen Data Projection for Computer Classes." T.H.E. Journal, 13 (September, 1985): 74.

Anonymous. "Projection Brings Interactive Video to Computer Classes." T.H.E. Journal, 12 (January, 1985): 92.

Hayhn, Carl H. "How Things Work: Liquid Crystal Displays." Physics Teacher, 19 (April, 1981): 256-257.

Hubbard, Abigail and Barbara Wilson. "An Integrated Information Management Education Program... Defining a New Role for Librarians in Helping End-Users." Online, 10 (March, 1986): 15-23.

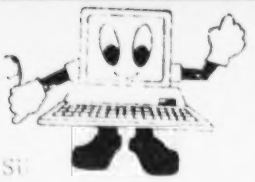
Luhn, Robert (editor). "From the Hardware Shelf: PC World Offers First Impressions of Recent Hardware Releases--Limelight." PC World, 4 (February, 1986): 258-259.

Robbins, Chris. "Cathode Ray Tube Faces Major Challenge from Rivals." Computer Weekly, (September 5, 1985): 28-29.

Saffady, William. Video Based Information Systems: A Guide for Educational, Business, Library, and Home Use. Chicago: American Library Association, 1985.

Smith, Judson. "Should You Be Using a Video Projection System?" Training, 17 (November, 1980): 40, 42, 44.

Wendelin, Colby. "The Big Picture." Infosystems, 31 (October, 1984): 90, 92.



BRIEF GUIDE TO LUIS

LUIS is an on-line system for locating books and other materials in the ISU libraries, Rose-Hulman Institute of Technology Library, and St. Mary of the Woods College Library.

IF YOU KNOW:	TYPE COMMAND:	FOLLOWED BY:	ALWAYS PRESS ENTER KEY
AUTHOR	a=	author's last name, then first name, if known	ENTER

EXAMPLE-
To see a list of available books by Louisa May Alcott use ANY of the following command combinations:

a=alcott OR a=alcott l OR a=alcott louisa OR a=alcott louisa m

TITLE	t=	title of book	ENTER

EXAMPLE-
To see if a copy of Little Women is available in any of the libraries you could use ANY of the following command combinations:

t=little women OR t=little wom OR t=little

SUBJECT	s=	the appropriate Library of Congress subject heading	ENTER

EXAMPLE-
The following subject search examples use subject headings which were verified in the Library of Congress Subject Headings (large, two volume set) as legitimate headings:

s=accounting s=united states--history s=prisons

IMPORTANT REMINDERS ABOUT LUIS SEARCHING...

...You do not need to capitalize or use punctuation when searching in LUIS.

...When searching by title, DISREGARD A, AN, and THE at the beginning of book titles.

...When subject searching, you MUST verify subject headings in the Library of Congress Subject Headings (large, two volume set) to make sure that all headings are legitimate.

...Follow the various command options in the COMMAND MENU (at the bottom of each LUIS search screen) until you get the information you need.

...For step-by-step instructions on LUIS searching, pick up a copy of "GETTING STARTED WITH LUIS" on the Library Information Rack.

MOST IMPORTANTLY, REMEMBER THAT IF YOU NEED HELP IN USING LUIS, ASK AT THE REFERENCE DESK!!

8/87

DATE DUE_____ SCORE_____

CUNNINGHAM MEMORIAL LIBRARY
LIBRARY INSTRUCTION & ORIENTATION

YOUR NAME_____ PROFESSOR'S NAME_____

COURSE ABBREV. & NO. _____ COURSE MEETING TIME_____

LUIS1 **SEARCHING FOR LIBRARY MATERIALS USING LUIS**

[For these exercises, DO NOT use for your answers any items marked TEST RECORD or STAFF USE.]

LUIS--SEARCHING FOR A BOOK BY AUTHOR

1. Using the author search prompt (a=), how many entries are listed on the AUTHOR/TITLE GUIDE or INDEX screen for the author LANGSTON HUGHES?

TOTAL NUMBER OF ENTRIES:_____

2. What is the first title listed under the above author that is owned by ISU? Write down its line number, then go to the BIBLIOGRAPHI(RECORD screen to determine the complete title, location and call numbe

LINE NUMBER _____ TITLE _____

_____

LOCATION _____CALL NUMBER _____

3. Go back to the INDEX screen(s) for the above author. Can you find listings for books by this author owned by libraries other than ISU? If so, write down the line number, title, and location for the first one you find.

LINE NUMBER _____ TITLE _____

_____

LOCATION _____

LUIS--SEARCHING FOR A BOOK BY TITLE

1. Using the title search prompt (t=) how many books do you find if you type in the following search requests?

t = SINGING _____ t = SINGING ACTOR _____

(continued)

LUIS--SEARCHING FOR MATERIALS BY SUBJECT

Remember that you must determine correct subject heading(s) in order to use LUIS when searching for subjects. For this part of the exercise, assume that you are interested in finding books on the subject of COLLEGE EDUCATION COSTS.

1. Consult a set of the LIBRARY OF CONGRESS SUBJECT HEADINGS. Look up the above heading. What is the correct subject heading to use?

   CORRECT SUBJECT HEADING _____

2. Now go to a LUIS terminal and type in a search request for the above correct subject heading. You should see a SUBJECT HEADING GUIDE screen. How many subject headings (total) are listed at the top of the screen?

   TOTAL SUBJECT HEADINGS _____

3. Using the correct LUIS command, go to the SUBJECT/TITLE INDEX screen for the subheading listed as --**UNITED STATES** under the main subject heading. How many titles are listed on the SUBJECT/TITLE INDEX screen?

   TOTAL TITLES LISTED _____

4. Do not leave the SUBJECT/TITLE INDEX screen(s) you are at now. Within the titles listed here, look for as many types of entries as are listed below. If there is more than one INDEX screen of titles, just look on the first two screens. Give the information requested below. **LIST THE FIRST ENTRY YOU FIND THAT FITS EACH CATEGORY.** You will need to go back and forth between the INDEX screens and the individual BIBLIOGRAPHIC RECORD screens for each item to be sure you have complete answers.

   If you don't find a title that fits one of the categories below, write: **NONE LISTED.**]

   a. BOOK OWNED BY ISU, LISTED AS BEING IN THE **MAIN** LIBRARY (CML)

      TITLE _____

      PUBLISHER _____ CALL NO. _____

   b. BOOK OWNED BY ISU, IN THE **REFERENCE** COLLECTION

      TITLE _____

      CALL NUMBER _____ DATE OF PUBLICATION _____

   c. A **GOVERNMENT DOCUMENT U. S.** TITLE_____

      CALL NUMBER _____

   How long did it take you to do this exercise? _____

   Have you used LUIS before? _____ YES ____NO

When you finish this exercise, return it to the Library Instruction and Orientation office, Room D2/D3, on the second floor. If the office is not open, slip the exercise under the door.